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PENNSYLVANIA DEPARTMENT OF AGRICULTURE
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C. H. HADLEY, DIRECTOR.

FUMIGATION WITH HYDROCYANIC ACID GAS

This deadly poisonous gas is the cheapest and most efficient means of eradicating greenhouse pests and scale insects when intelligently employed.

Formula used:-
1 oz. sodium cyanide (51 to 52% cyanogen)
 $1\frac{1}{2}$ fl. oz. sulphuric acid (93%)
2 fl. oz. water

The amount of cyanide necessary to kill the pests without injuring the host plants depends upon the variety and condition of the plants. Dormant nursery stock should be exposed to three-fourths to one ounce of cyanide per 100 cubic feet of space for an hour, while greenhouse plants cannot withstand doses of more than three-fourths of an ounce of cyanide per 1000 cubic feet for one hour. Farmers' Bulletin No. 880 of the U.S. Department of Agriculture gives the proper dosage for different greenhouse plants as well as the methods used.

Plants must not be fumigated in the daylight nor when the temperature is below 52 degrees Fahr., or above 70 degrees Fahr. Greenhouse plants should not be watered for several hours before treatment. Air-tight fumigating boxes or houses with ventilators operated from the outside should always be used. A porcelain lined crock should be used for a generator and where a long greenhouse is to be fumigated several crocks will give a better distribution of the gas.

The amount of chemicals needed can be readily determined on calculating the cubical contents of the box or building. Then the acid is poured into the water in the crock and the cyanide (in a paper bag) dropped into this solution. The operator must leave the room at once and seal the exit. When several generators are used the paper bag containing the charge of cyanide should be suspended over the generator and the strings passed to the outside of the building when, after closing the building, they may be broken, thus dropping all the cyanide charges into generators at the same time.

THIS GAS IS DEADLY TO MANKIND, a single breath producing death. Care must be taken at all times in its use. Ventilators opening from the outside should be provided. After fumigation is complete the building should be well aired before any one is permitted to enter. Likewise the chemicals, before being used, should be labeled and stored beyond the reach of children. The spent solution should be buried or poured down a sewer.

BE SURE YOU KNOW WHAT YOU ARE ABOUT BEFORE YOU START FUMIGATING WITH HYDROCYANIC ACID GAS.

